

AMENDMENTS TO THE SPECIFICATION:

Please insert the following new paragraph before paragraph [0008]:

Figure 1 is a simplified elevational view of the essential elements of a xerographic printer incorporating the present invention.

Please replace paragraph [0008] with the following amended paragraph:

Figure 1A-2A shows the conventional AC BCR excitation as used in our BCR print tests. Figure 2B shows the burst modulated excitation waveform as used in our BCR print tests.

Please replace paragraph [0009] with the following amended paragraph:

Figure 23A shows a schematic representation of a particular burst modulation waveform used in BCR testing wherein the burst modulation frequency is fixed at 1.6 kHz and the DC offset is -500V. Figure 3B shows the Vhi – Vpp and Vhi – IAC characteristics for conventional and burst modulated BCR charging wherein the AC duty cycle is varied by Method 1.

Please replace paragraph [0010] with the following amended paragraph:

Figure 3-4 shows the Vhi – Vpp and Vhi – IAC for conventional and burst modulated BCR charging wherein charging results for varying the AC duty cycle is varied by Method 2.

Please replace paragraph [0011] with the following amended paragraph:

Figure 4-5 shows the wear results for conventional and burst modulated BCR charging obtained from print runs in a DC12 machine.

Please insert the following new paragraph after paragraph [0011] as follows:

Figure 6 shows a tabulated summary of several print quality characteristics obtained in a DC12 machine with several burst modulated excitation waveforms applied to a BCR.

Please replace paragraph [0022] with the following amended paragraph:

Print quality was screened as a function of AC duty cycle and in virtually all cases no degradation relative to conventional AC BCR charging was observed in print quality attributes such as halftone uniformity, background and line density. The table in Figure 5Figure 6 summarizes the results. Common test conditions include $V_{dc} = -570$ V, $V_{pp} = 2.0$ kV (constant voltage); the photoreceptor was an experimental PTFE filled organic photoconductive. Given a constant burst frequency of 1.6 kHz, variation in carrier frequency from 2.0 to 3.2 kHz (80% and 50% duty cycles, respectively) led to print quality that was equivalent to the control, i.e., conventional AC BCR charging. However, when the carrier frequency was increased to 4.8 kHz (33% duty cycle), print quality was characterized by severe background because the relaxation time limitations of this BCR prohibit attainment of V-hi. Print quality was also generally good with a fixed 1.6 kHz carrier frequency and burst frequency varying from 1.3 to 1.0 kHz (80% and 63% duty cycles, respectively). At 1.6 kHz charging is not limited by BCR relaxation time limitations and burst

frequencies lower than 1 kHz are probably useful. The lower limit of burst frequency would be dictated by the onset of banding in the prints. Optimization of carrier and burst frequencies to balance print quality and wear was not done, however, it is clear that the optimized values of the latter should depend on process speed and the electrical properties of the BCR such as relaxation time.